

CCMC 12874-R

CCMC Canadian code compliance evaluation

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Evaluation holder:	<p>Tremco CPG Inc. 3735 Green Road Beachwood OH 44122 United States Website: tremcocpg.com Telephone: 216-469-8397</p>
Product names:	<ul style="list-style-type: none"> • Outsulation@MD • Outsulation@MDNC • Outsulation@PD • Outsulation@PDNC • Outsulation@Plus • Outsulation@PlusNC
Compliance:	NBC 2015
Criteria:	CCMC-TG-072413.01-15B, "CCMC Technical Guide for Exterior Insulation and Finish Systems (EIFS) Class PB"

In most jurisdictions this document is sufficient evidence for approval by Canadian authorities.

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Compliance opinion

It is the opinion of the Canadian Construction Materials Centre that the evaluated products, when used as exterior insulation and finish system (EIFS) (wall cladding that is designed to provide thermal insulation and a weather barrier) in accordance with the conditions and limitations stated in this evaluation, comply with the following code:

National Building Code of Canada 2015

Code provision	Solution type
3.1.4.2.(1)(c) Protection of Foamed Plastics	<u>Acceptable</u>
3.1.5.15(2)(a) Foamed Plastic Insulation	<u>Acceptable</u>
3.1.5.5.(1) Except as provided in Sentences 3.1.5.5. ...	<u>Acceptable</u>
3.2.3.8.(1)(b) Protection of Exterior Building Face	<u>Acceptable</u>
5.6.1.1.(1) Except as provided in Sentence 5.6.1.1.(...	<u>Acceptable</u>
5.9.4. Exterior Insulation Finish Systems	<u>Acceptable</u>
9.25.2.2.(1)(d) Insulation Materials	<u>Acceptable</u>
9.27.1.1.(5) Where an exterior insulation finish syst ...	<u>Acceptable</u>
9.27.2.1. Minimizing and Preventing Ingress and Damage	<u>Acceptable</u>
9.27.2.2.(1)(e) Minimum Protection from Precipitation Ingress	<u>Acceptable</u>
9.27.2.3.(1) Where walls required to provide protecti ...	<u>Acceptable</u>
9.27.3.1. Elements of the Second Plane of Protection	<u>Acceptable</u>
9.27.13. Exterior Insulation Finish Systems	<u>Acceptable</u>

The above opinion(s) is/are based on the evaluation by the CCMC of technical evidence provided by the evaluation holder, and is bound by the stated conditions and limitations. For the benefit of the user, a summary of the technical information that forms the basis of this evaluation has been included.

Product information

Product names

- Outsulation®MD
- Outsulation®MDNC
- Outsulation®PD
- Outsulation®PDNC
- Outsulation®Plus
- Outsulation®PlusNC

Product description

The products are non-loadbearing exterior insulation and finish systems (EIFS) that can be assembled in panels under factory-controlled conditions or field-applied. The systems are composed of the following key components:

- a water-resistive barrier (WRB);
- an adhesive;
- an insulation board; and
- a coating system (lamina).

Note: The lamina refers to all coats (base and finish) that are applied to the outer face of the insulation board together with the glass-fibre mesh reinforcement.

See below descriptions of the different components of the systems.

Substrate

For applications falling under the scope of this Report, the substrate can be brick, masonry, monolithic concrete walls, and/or cementitious panels, glass-mat-surfaced gypsum boards, plywood or oriented strandboard (OSB) over wood or steel framing. Gaps between the sheathing boards of framed walls must not exceed 3.2 mm.

Water-resistive barrier (WRB)

The water-resistive barrier (WRB) is a coating (application thicknesses are mentioned in the section below) that is installed to provide a continuous membrane over the substrate and around penetrations and openings to provide, along with other built-in features, the second line of defense against water infiltration into the structure. In order to provide the intended level of protection against water infiltration, the water penetration barrier shall be installed in a two-coat application in which the first coat shall have sufficient time to cure before the second coat is applied. The water-resistive barrier shall be applied in accordance with the relevant Dryvit Systems Canada's system specification:

- Outsulation Plus DSC137 (2018-08-03)
- Outsulation MD DSC168 (2018-08-03)
- Outsulation PD DSC601 (2018-08-03)

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The continuity of the second plane of protection across joints and junctions at openings, penetrations and expansion joints shall be maintained through accessories such as self-adhering membranes, tapes, etc. as specified by the manufacturer prior to the installation of these systems.

Trowel-, roller- or spray-applied coatings

Dryflex[®] is a ready-to-use, polymer-based wet mix coating supplied in 20-kg pails and mixed on site with Type GU Portland cement (1:1 by weight). Dryflex[®] is trowel-applied in a continuous layer over the non-wood substrate. Apply two coats to achieve a total minimum dry thickness of 1.6 mm. Dryflex[®] is applied in combination with a rubberized flashing tape that wraps around the framing and penetrations. When Dryflex[®] is applied to a sheathing substrate, a 100-mm-wide self-adhering glass fibre mesh must be applied over all the joints of the sheathing.

Backstop[®] NT™ is a factory-blended, ready-to-use, non-cementitious polymeric coating that is supplied in 27.2 kg pails to be applied in accordance with Dryvit Systems Canada's DSC177 application instructions. Backstop[®] NT™ is applied in a two-step process in which all sheathing joints are first reinforced with AquaFlash Mesh or Dryvit Grid Tape™ (note: when used over wood sheathing, AquaFlash Mesh must be used). Backstop[®] NT™ is applied over the entirety of the opaque wall area on which the Outsulation[®] system is to be applied. The rendered dry film thickness shall be no less than 0.3 mm (12 mils) when measured at any location (i.e., the application thickness is not to be averaged), regardless of substrate type. Backstop[®] NT™ is used in conjunction with self-adhered rubberized flashing tape for the protection of framing edges and penetrations. Alternatively, Dryvit AquaFlash[®] may be used in conjunction with the fibre mesh and closed-cell backer rod instead of the self-adhering rubberized flashing tape.

Backstop[®] NT-VB is a factory-blended, ready-to-use, non-cementitious polymeric coating that is supplied in 27.2 kg pails to be applied in accordance with Dryvit Systems Canada's DSC831 application instructions. Backstop[®] NT-VB is applied in a three-step process in which all sheathing joints are first reinforced with AquaFlash Mesh or Dryvit Grid Tape™ (note: when used over wood sheathing, AquaFlash Mesh must be used). Backstop[®] NT-VB is applied over the entirety of the opaque wall area on which the Outsulation[®] system is to be applied. The rendered dry film thickness shall be no less than 0.6 mm (24 mils) when measured at any location (i.e., the application thickness is not to be averaged), regardless of substrate type. Backstop[®] NT-VB is used in conjunction with self-adhered rubberized flashing tapes for the protection of framing edges and wall penetrations.

Joint, rough openings and penetration treatments

For the above WRB materials, where the sheathing joints occur in locations that are designed to accommodate deflection and/or movement, a self-adhering rubberized flashing tape not less than 51 mm shall be applied to both sides of the joint. Alternatively, Dryvit AquaFlash[®] may be used in conjunction with the fibre mesh and closed-cell backer rod instead of the self-adhering rubberized flashing tape.

Framing and penetrations may be treated using Dryvit AquaFlash[®], a factory-blended, polymer-based liquid-applied membrane supplied in 3.6 kg or 18.2 kg pails and used in conjunction with AquaFlash Mesh. Dryvit AquaFlash[®] is applied using a brush or deep nap roller at a rate of 0.4 kg/m². AquaFlash Mesh must be embedded into wet Dryvit AquaFlash[®] and a second coat applied. When dry, Dryvit AquaFlash[®] and AquaFlash Mesh render a black opaque film. Whether by flashing membrane or the use of the Dryvit AquaFlash[®] material, the WRB is to provide continuity of water penetration barrier and bridge transition areas between substrate and wall penetrations as well as across deflection joints or other movement joints within the substrate.

Adhesive

Adhesives are used for bonding the insulation to the substrate coated with the WRB. They are, in general, available in the following forms:

- a dry powder mix requiring the addition of water on site;
- a wet paste that requires the addition of cement on site; or
- a form that does not require any additives.

Certain adhesives are also used as base coats, as in the case with all noted adhesives. Consequently, the description of base coat products has been placed in this section.

Primus[®] is a field-mixed, polymer-based adhesive and base coat supplied in 27-kg pails (18.9 L) (i.e., wet emulsion). Primus[®] is mixed on site with Type GU Portland cement (1:1 by weight). Workability may be adjusted by adding a maximum of 250 ml of clean potable water.

Primus[®] DM is a ready-to-use, polymer-based adhesive and base coat, supplied in 22.6-kg powder bags. The material is mixed on site with clean potable water (4:1 by weight, dry mix to water). Primus[®] DM adhesive/base coat is considered a noncombustible material through compliance to CAN/ULC-S114-05, "Test for Determination of Non-Combustibility in Building Materials."

Primus[®] and Primus[®] DM are applied over the Dryvit Insulation Board or Dryvit Geometrically Defined Insulation Board using a stainless steel, U-shaped, notched trowel and rendered in such a way so as to align the adhesive in vertical ribbons from their beginning point to their end point without crossing over one another. The spacing between the ribbons shall be 50 mm and the size of the notches shall be 12.7 mm in width and 12.7 mm in depth. The vertical orientation is meant to describe the direction of the adhesive ribbons when the insulation board is placed onto the substrate.

Insulation

Dryvit Insulation Board is a typical flat stock Type 1 expanded polystyrene (EPS) insulation board.

Dryvit Geometrically Defined Insulation Board is an EPS board that has been configured with grooves and chamfers to facilitate drainage and drying. When used in conjunction with Outsulation[®] MD/MD^{NC}, the Dryvit Geometrically Defined Insulation Board has a 13 mm chamfer that is cut around the entire perimeter of the board, along with three 25-mm-wide by 10-mm-deep grooves that are spaced equidistantly across the 1 220-mm-wide insulation board, 305 mm centre to centre.

When used in conjunction with Outsulation[®] PD/PD^{NC}, Dryvit Geometrically Defined Insulation Board has a 15 mm chamfer cut around the entire perimeter of the board, along with three 25-mm wide by 10-mm deep grooves that are spaced equidistantly across the 1 220-mm wide insulation board, 305 mm centre to centre. Between these grooves are four inverted triangular grooves measuring 38 mm at their base and narrowing to 2 mm at the peak. The base of the triangle aligns with the perimeter chamfer at a depth of 15 mm. See [Figure 1](#) and [Figure 2](#) for further details.

Dryvit Insulation Board and Dryvit Geometrically Defined Insulation Board are Type 1 EPS insulation boards that are made from 100% virgin materials and manufactured and packaged by a Dryvit Systems Canada-approved and -licensed manufacturer/molder. The insulation boards are aged in ambient air for a minimum of five weeks or kiln-dried.

Dryvit Insulation Board and Dryvit Geometrically Defined Insulation Board EPS insulation boards shall conform to:

- Annex A, “Expanded Polystyrene (EPS) Thermal Insulation Requirements For Use In Exterior Insulation and Finish Systems (EIFS)” of CAN/ULC-S701-11, “Thermal Insulation, Polystyrene, Boards and Pipe Covering”;
- Minimum board thickness of 50 mm;
- Maximum board thickness:
 - as designed, when used in combustible construction,
 - 150 mm when used in conjunction with Outsulation[®] systems where applications are to conform to the requirements of Sentence 3.1.5.5.(1) of Division B of the NBC 2015,
 - 150 mm when used in conjunction with Outsulation^{NC} systems where installation is to conform to the requirements of Clause 3.2.3.8.(1)(b) of Division B of the NBC 2015;
- Maximum board size is 610 mm × 1 220 m;
- Average density of 16 kg/m³; and
- Flame-spread rating is 25-500, per CAN/ULC-S102.2-10, “Test for Surface Burning Characteristics of Flooring, Floor Coverings, and Miscellaneous Materials and Assemblies.”

Synthetic coating system (lamina)

The synthetic coating system (lamina) consists of:

- the reinforcing mesh, which is embedded within the base coat;
- a primer; and
- a finish coat.

Base coat

The base coat consists of:

- Primus[®] (see material description in the [Adhesive](#) section); or
- Primus[®] DM (see description in the [Adhesive](#) section).

As a base coat, the Primus[®] and Primus[®] DM materials are applied over the prepared insulation board covering an area slightly greater than the size of mesh to be embedded. While wet, mesh is embedded into the base coat and rendered flat, without wrinkle or void. Where mesh pieces overlap within the field of the wall, the required overlap is 75 mm. The final rendered thickness of base coat and mesh is 2.0 mm when dry.

Note: The thickness of the base coat required depends on the number of layers and the type of reinforcing mesh used. The base coat is thicker when more than one layer of reinforcing mesh is incorporated into the lamina. The final thickness of the base coat must be sufficient to fully embed the reinforcing mesh in the base coat and with no mesh colour visible.

Reinforcing mesh

Dryvit Standard Mesh is an alkali-resistant, glass-fibre reinforcing fabric that has a minimum nominal weight of 145 g/m² and is manufactured by Saint-Gobain ADFORS. The mesh is blue and is available in either 965-mm or 1 219-mm wide rolls. Starter mesh for rendering surface articulations and terminations is available in rolls that are 240-mm wide. The reinforcing mesh comes in the following five grades, represented in ascending order of strength:

- Standard, minimum 145 g/m², for use at wall terminations and opening edges;
- Standard Plus, minimum 203 g/m², for use on wall surfaces subjected to normal impact;

- Intermediate, minimum 373 g/m², for use on wall surfaces subjected to medium impact;
- Panzer[®] 15, minimum 508 g/m², for use on wall surfaces subject to high impact; and
- Panzer[®] 20, minimum 678 g/m², for use on wall surfaces requiring ultra-high impact resistance.

AquaFlash Mesh is a thermally-bonded, non-woven 76 g/m² mesh with 100% random filament fibres that are reinforced by a 5 × 5 mm polyester scrim for use in conjunction with Backstop[®] NT[™] and Backstop[®] NT-VB WRB at sheathing joints.

Dryvit Grid Tape[™] is a self-adhering, woven, fibreglass mesh having a weight of 61 g/m² and is used to reinforce non-wood sheathing joints in conjunction with Dryflex[®], Backstop[®] NT[™] and Backstop[®] NT-VB.

Primer (optional)

Color Prime[™] is a ready-mix, polymer-based, coloured acrylic primer that provides a uniformly absorbent surface for selected Dryvit finish coats. Color Prime[™] is supplied in 22.7 kg pails. It is thoroughly mixed using a paddle mixer and electric drill, and is applied using a long-bristled roller or paintbrush. The use of Color Prime[™] may be required with certain colours such as deep accents; otherwise, its use is optional.

Finish coat

DPR is a ready-mix, polymer-based finish coat that is supplied in 32 kg pails. It is factory-tinted to the desired colour.

The finish coats provide a texture that is governed by the aggregate size and trowel motion used to render the wall surface. The different textures offered and their respective coating thickness are:

- Custom Brick[™] (≤ 2.0 mm);
- Freestyle[®] (≤ 1.0 mm);
- Limestone[™] (≤ 1.0 mm);
- Quarzputz[®] (1.8 mm);
- Sandblast[®] (1.0 mm);
- Sandpebble[®] Fine (1.2 mm);
- Sandpebble[®] (1.5 mm); and
- Stucco Finish (1.5 mm).

All finish coats are colour-tinted to the desired colour.

Dryvit system elements

Table 1. Dryvit Outsulation® Systems

System	Substrate	WRB	Adhesive	Insulation	Base coat	Primer	Finish coat	Accessories
Outsulation® Plus	<ul style="list-style-type: none"> • cement board • concrete • glass-mat surfaced gypsum • masonry • OSB • plywood 	<ul style="list-style-type: none"> • Dryflex® (1) • Backstop® NT-VB/ Backstop® NT™ 	Primus®	flat EPS	Primus®	Color Prime™ (2)	DPR	<ul style="list-style-type: none"> • AquaFlash® • corrugated drainage strip
Outsulation® Plus^{NC}	<ul style="list-style-type: none"> • cement board • concrete • glass-mat surfaced gypsum • masonry 	<ul style="list-style-type: none"> • Dryflex® (1) • Backstop® NT-VB/ Backstop® NT™ 	Primus® DM	flat EPS	Primus® DM	Color Prime™ (2)	DPR	<ul style="list-style-type: none"> • AquaFlash® • corrugated drainage strip
Outsulation® MD	<ul style="list-style-type: none"> • cement board • concrete • glass-mat surfaced gypsum • masonry • OSB/ plywood 	<ul style="list-style-type: none"> • Dryflex® (1) • Backstop® NT-VB/ Backstop® NT™ 	Primus®	“MD” GDDC EPS Insulation	Primus®	Color Prime™ (2)	DPR	<ul style="list-style-type: none"> • AquaFlash® • AquaVent • corrugated drainage strip
Outsulation® MD^{NC}	<ul style="list-style-type: none"> • cement board • concrete • glass-mat surfaced gypsum • masonry 	<ul style="list-style-type: none"> • Dryflex® (1) • Backstop® NT-VB/ Backstop® NT™ 	Primus® DM	“MD” GDDC EPS Insulation	Primus® DM	Color Prime™ (2)	DPR	<ul style="list-style-type: none"> • AquaFlash® • AquaVent • corrugated drainage strip

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System	Substrate	WRB	Adhesive	Insulation	Base coat	Primer	Finish coat	Accessories
Outsulation® PD	<ul style="list-style-type: none"> • cement board • concrete • glass-mat surfaced gypsum • OSB • masonry • plywood 	<ul style="list-style-type: none"> • Dryflex® (1) • Backstop® NT-VB/ Backstop® NT™ 	Primus®	Geometrically Defined EPS	Primus®	Color Prime™ (2)	DPR	<ul style="list-style-type: none"> • AquaFlash® • AquaVent
Outsulation® PD^{NC}	<ul style="list-style-type: none"> • cement board • concrete • glass-mat surfaced gypsum • masonry 	<ul style="list-style-type: none"> • Dryflex® (1) • Backstop® NT-VB/ Backstop® NT™ 	Primus® DM	Geometrically Defined EPS	Primus® DM	Color Prime™ (2)	DPR	<ul style="list-style-type: none"> • AquaFlash® • AquaVent

Notes:

- 1 Dryflex® is not for use over wood sheathings.
- 2 Optional on all systems.

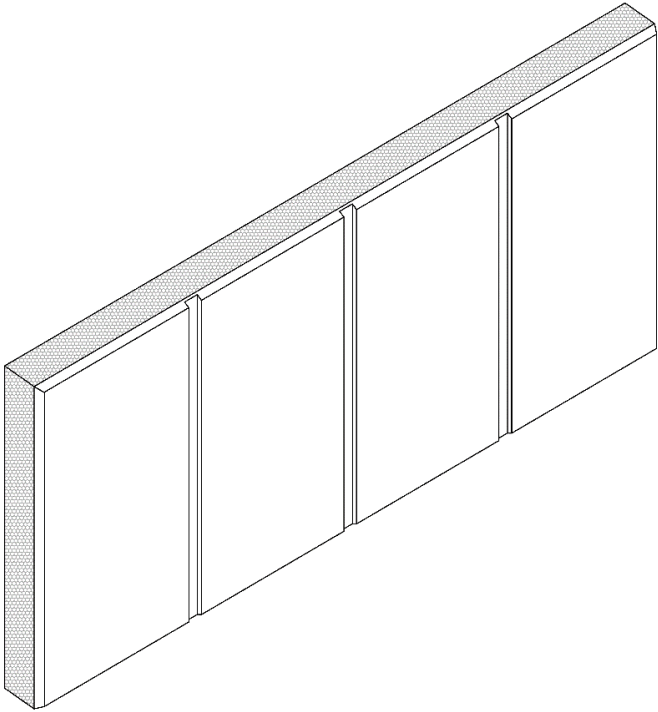


Figure 1. Outsulation[®] MD GDDC Insulation Board

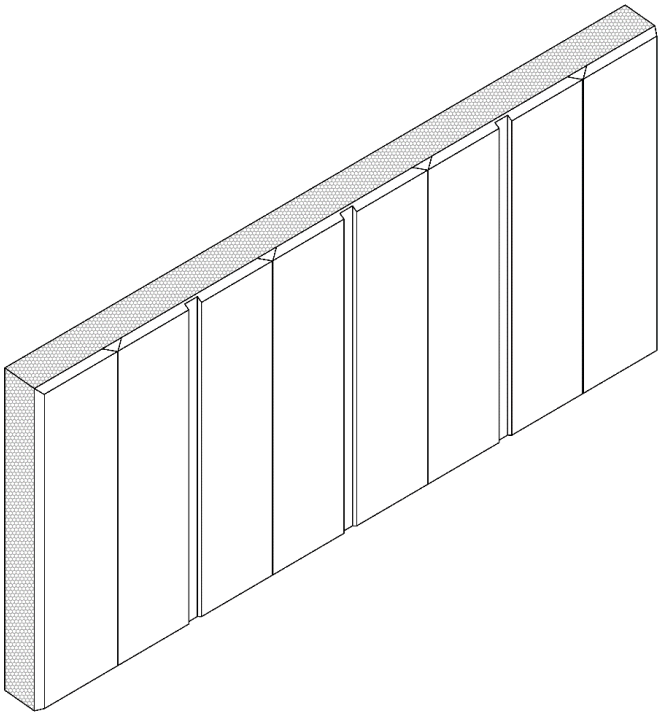


Figure 2. Outsulation[®] PD insulation board

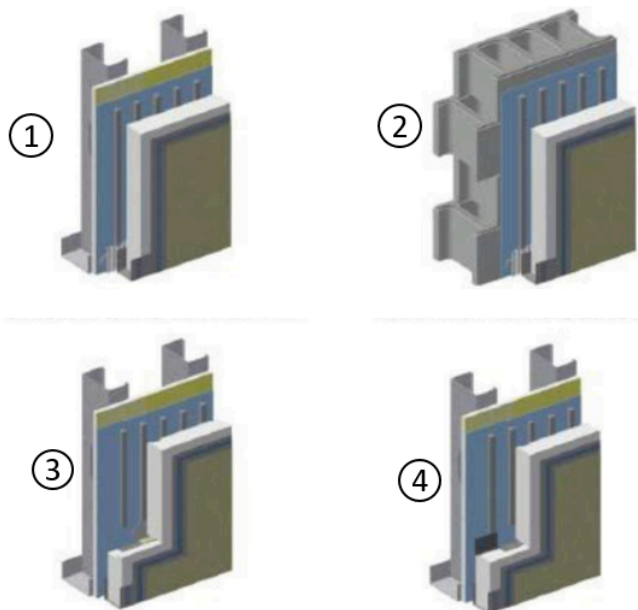


Figure 3. Dryvit Outsulation® Series

1. Outsulation® Plus over Densglass®
2. Outsulation® Plus over Concrete Block
3. Outsulation® MD over Densglass®
4. Outsulation® PD over Densglass®

Manufacturing plant

This evaluation is valid only for products produced at the following plant:

Product names	Manufacturing plant
	Stouffville, ON, CA
Outsulation®MD	☑
Outsulation®MDNC	☑
Outsulation®PD	☑
Outsulation®PDNC	☑
Outsulation®Plus	☑
Outsulation®PlusNC	☑

☑ Indicates that the product from this manufacturing facility has been evaluated by the CCMC

Conditions and limitations

The CCMC's compliance opinion is bound by this product being used in accordance with the conditions and limitations set out below.

General

- The product is intended for use as an exterior wall cladding on buildings falling under the scope of Parts 5 and 9 of the NBC 2015.
- When used in existing buildings, the applicable or the relevant elements of the existing buildings must comply with the requirements of the NBC 2015.
- The products are intended to be used as an exterior insulation and finish wall system applied directly to vertical walls of brick, masonry, monolithic concrete walls, and/or cementitious, glass-mat surfaced gypsum, plywood or OSB sheathing boards installed over wood or steel framing.
- Gaps between the sheathing boards of framed walls shall not exceed 3.2 mm.
- The products are acceptable for use on vertical walls. The systems are not acceptable for use on horizontal surfaces. (Note: the present limitation doesn't include protected soffit applications.)
- When the products are part of a prefabricated panel system that incorporates structural components, the prefabricated panel system shall be designed by a professional engineer or architect in accordance with the manufacturer's criteria and the requirements of the NBC 2010 or 2015 based on the edition in effect for the given region.
- The products are not intended for use as a below-grade insulation and should terminate at least 200 mm above grade level.
- For buildings within the scope of Part 5 of Division B of the NBC 2015, the system shall be designed in accordance with the requirements of Article 5.9.4.1., Structural Loads, Heat Transfer, Air Leakage, Vapour Diffusion and Water Penetration, of the NBC 2015.
- The product must be installed according to the manufacturer's installation manual (Outsulation Plus DSC218 (2018-07-27), Outsulation MD DSC169 (2018-07-27), Outsulation PD DSC602 (2018-03-12)) by a listed applicator who possesses a valid manufacturer certificate for the system being installed.
- Wet materials must be applied at temperatures above 4°C and maintained above 4°C for a period not less than 24 hours. The substrate must be maintained above 4°C for a period not less than 24 hours. Cool and humid climatic conditions may extend drying time beyond 24 hours. Temporary protection and heat must be provided during colder conditions. Materials must be stored at temperatures between 4°C and 38°C. Previously frozen materials must not be used.
- Wet, finished surfaces must be protected from rain and other moisture sources until sufficiently dry (set and hardened) to prevent wash-off or other moisture-related damage.

Water penetration control

- Polymeric WRB coating materials must be installed in a two-coat application, regardless of substrate type and application method.
- The continuity of the second plane of protection across joints and junctions at openings, penetrations and expansion joints must be maintained through accessories such as self-adhering membranes, tapes, etc., as specified by the manufacturer, prior to the installation of these systems.

- The product shall be installed with suitable flashing to drain any incidental water from the drainage cavity to the exterior and to protect the exposed top edge of the cladding. Cap flashing must be installed immediately after completion of the finish coat or temporary protection must be provided.
- When using notched trowel adhesive ribbons as the drainage mechanism, the application of the ribbons must be conducted in a way as to form clear and parallel drainage paths behind the insulation boards and to avoid the creation of any V-grooves (V-grooves refer to ribbons touching and closing the drainage path). The wet ribbons must be a minimum of 9.0 mm deep, 9.0 mm wide and 50 mm apart.
- The drained airspace behind the insulation boards shall remain unobstructed so as to form a clear drainage cavity behind the insulation board and it shall terminate in such a way as not to obstruct the dissipation of incidental rainwater.
- When used in coastal areas for residential occupancies for buildings falling under the scope of Part 9 of Division B of the NBC 2015, the products must be installed in conjunction with a capillary break conforming with Sentence 9.27.2.2.(1)(e), Minimum Protection from Precipitation Ingress, of Division B of the NBC 2015. Coastal areas are defined in Sentence 9.27.2.2.(5) of Division B of the NBC 2015.

Condensation control

- For buildings within the scope of Part 9, Housing and Small Buildings, of the NBC 2015, the design of the inboard/ outboard insulation of the systems shall be in accordance with the requirements of Section 9.25., Heat Transfer, Air Leakage and Condensation Control, of Division B of the NBC 2015.
- When used on existing walls of sprinklered buildings or existing walls of the buildings with not more than 3 storeys, the possibility of moisture accumulation within the wall construction is mainly a function of 1) the ability of the wall assembly to deflect bulk water entry, and 2) the physical properties of the cladding being installed and its impact on the thermal, air leakage and vapour diffusion characteristics of the existing wall. The potential for moisture accumulation as a result of the addition of materials is very specific to the existing wall construction. Therefore, the installation must be in accordance with Appendix Note A-5.1.2.1(1), Application (Environmental Separation), of Division B of the NBC 2015.

Cladding attachment and structural considerations

- The products are not suitable for use as structural sheathing for bracing purposes.
- Systems as described in Dryvit Outsulation® Systems table are limited to geographical areas where the Q_{50} wind reference value is < 1.0 kPa and/or where the design limit requirements are within wind-load values expressed within the Wind Load Resistance table.
- Movement joints are required to accommodate expansion and contraction of building materials due to thermal changes, moisture, wind, gravity, vibration and seismic activity. Expansion joints in the cladding must be used in the following situations:
 - at joints that occur in the substrate;
 - at any abutment of the system with other materials;
 - where changes in substrate might create deflection or movement;
 - where significant structural movement occurs;
 - where deflections in excess of $L/240$ are expected; and
 - at the floor line in wood-frame construction (may not be required where fully engineered framing and floor systems are used).
- Closed-cell backer rods should be used at expansion joints so that the low-modulus sealant may be installed as per the sealant manufacturer's instructions.

- Glass-mat gypsum sheathing must be in compliance with the requirements of ASTM C 1177/C 1177M-13, “Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing,” or have been evaluated by the CCMC.
- OSB and/or plywood sheathing boards used in conjunction with the systems must comply with the requirements of CSA O86-14, “Engineering Design in Wood” and CSA 0437 SERIES-93 (R2011), “OSB and Waferboard.” For plywood sheathing boards: CSA O121-08, “Douglas Fir Plywood,” CSA O151-09, “Canadian Softwood Plywood,” CSA O153-13, “Poplar Plywood,” or CSA O325.0-07, “Construction Sheathing.”
- The OSB and/or plywood sheathing boards must have a minimum thickness of 11.1 mm and 12.7 mm respectively. The boards must have their principal strength-direction across the studs, must be continuously supported by framing, and must be gapped at least 2.0 mm, but not more than 3.2 mm.
- OSB and/or plywood sheathing boards used in conjunction with Exterior Insulation and Finish System (EIFS) Class PB must be fastened to the framing in conformance with Article 9.23.3.5., Fasteners for Sheathing or Subflooring, of Division B of the NBC 2015.
- The products intended for use over wood shall have a moisture content of lumber and/or wood sheathing not greater than 19% at the time of the application of the WRB.

Fire protection

- When used in combustible construction, the polystyrene insulation must be protected from the inside of the building in accordance with Clauses 3.1.4.2.(1)(c), Protection of Foamed Plastics, and 9.10.17.10.(1)(c), Protection of Foamed Plastics, of Division B of the NBC 2015.
- When used in noncombustible construction, the polystyrene insulation must be protected from the inside of the building in accordance with Article 3.1.5.15., Foamed Plastic Insulation, as applicable, of Division B of the NBC 2015.
- Where allowed by the Code through conformance to Sentence 3.1.5.5.(1), Combustible Cladding on Exterior Walls, of Division B of the NBC 2015, Outsulation[®] Plus, Outsulation[®] MD and Outsulation[®] PD are acceptable for use on buildings required to be of noncombustible construction, where not more than three storeys in height if unsprinklered, and to an unlimited number of storeys if sprinklered, provided the interior surfaces of the wall assembly are protected by a thermal barrier conforming to Article 3.1.5.15. of Division B of the NBC 2015. For a detailed description of the compliance of Outsulation[®] Plus, Outsulation[®] MD and Outsulation[®] PD to the requirements of Sentence 3.1.5.5.(1) of Division B of the NBC 2015, please refer to Intertek SPEC ID: 29311 Dryvit Category 1 Design Listing (please note that back-up wall assemblies covered by the design listing do not include wood framing and wood sheathings and extend to non-combustible substrates only [steel stud over sheathings such as gypsum board, concrete and masonry]).
- Where allowed by the Code through conformance to Clause 3.2.3.8.(1)(b) of Division B of the NBC 2015, Outsulation[®] Plus^{NC}, Outsulation[®] MD^{NC} and Outsulation[®] PD^{NC} are acceptable for use in the exposed face of buildings required to be of combustible or noncombustible construction, provided the interior surfaces of the wall assembly are protected by a thermal barrier conforming to Article 3.1.5.15. of Division B of the NBC 2015. For a detailed description of the compliance of Outsulation[®] Plus^{NC}, Outsulation[®] MD^{NC}, and Outsulation[®] PD^{NC} to the requirements of Clause 3.2.3.8.(1)(b) of Division B of the NBC 2015, please refer to Intertek SPEC ID: 29344 Dryvit Category 2 Design Listing (please note that back-up wall assemblies covered by the design listing do not include wood framing and wood sheathings and extend to non-combustible substrates only [steel stud over sheathings such as gypsum board, concrete, masonry and ICF]).
- The systems should be kept at least 50 mm, or as required in building regulations and safety codes, from heat-emitting devices, such as recessed light fixtures and chimneys.
- The requirements of the NBC 2015 regarding fire blocks must be implemented.

Thermal properties

- When the systems are used on existing walls, the addition of thermal insulation to existing exterior walls will increase the thermal efficiency and airtightness of the wall. Deficiencies in flashing and other elements in the building assembly, including mechanical systems, may result in detrimental effects of moisture accumulation as highlighted in Appendix Note A 9.25.2.4.(3), Loose-Fill Insulation in Existing Wood-Frame Walls, of Division B of the NBC 2015. As a result, once the EIFS (the product evaluated in this report) is installed, the existing exterior walls must meet the requirements of the NBC 2015 for heat transfer, air leakage and condensation control.
- The products can provide additional thermal insulation to the wall assembly with no detrimental effects if properly designed and installed with knowledge of the existing wall configuration and performance.
- The products alone may not provide the full amount of the required wall insulation. The thermal resistance of the wall system shall conform to the energy requirements of the applicable building code. The wall system may have to conform to the National Energy Code of Canada for Buildings 2015 at minimum to meet Canada Mortgage and Housing Corporation technical requirements.
- The polystyrene thermal insulation blocks shall be aged for a minimum of five weeks or kiln-dried before installation in accordance with Annex A “Aging” requirements of CAN/ULC-S701 before cutting into insulation boards.
- The polystyrene thermal insulation must be in conformance with the requirements of CAN/ULC-S701.
- The polystyrene thermal insulation boards must be cut from moulded blocks manufactured using 100% virgin raw materials
- When used in combustible construction, the polystyrene insulation must be protected from the inside of the building in accordance with Clauses 3.1.4.2.(1)(c), Protection of Foamed Plastics, and 9.10.17.10.(1)(c), Protection of Foamed Plastics, of Division B of the NBC 2015.
- The expanded polystyrene thermal insulation must have a flame-spread rating of not more than 500 when tested in accordance with the requirements of CAN/ULC-S102.2-10, “Test for Surface Burning Characteristics of Flooring, Floor Coverings, and Miscellaneous Materials and Assemblies.”

Technical information

This evaluation is based on demonstrated conformance with the following criteria:

Criteria number	Criteria name
CCMC-TG-072413.01-15B	CCMC Technical Guide for Exterior Insulation and Finish Systems (EIFS) Class PB

The evaluation holder has submitted technical documentation for the CCMC's evaluation. Testing was conducted at laboratories recognized by the CCMC. The corresponding technical evidence for this product is summarized below

Performance requirements

Table 2. Ash content

Property	Unit	Requirement	Result
Ash content - WRB (Dryflex®)	%	Report value	80.0
Ash content - WRB (Backstop® NT™)			59.9
Ash content - Primus® DM			92.5
Ash content - Sandpebble® Fine			60.4

Table 3. Adhesion of WRB to substrates other than plywood/OSB

Property			Unit	Requirement: no detachment at bonding plane @	Result
Adhesion bond of WRB to concrete	Dryflex®	dry state	MPa	0.25	0.62
		2 h drying		0.08	0.46
		7 d drying		0.25	1.05
	Backstop® NT™	dry state	MPa	0.25	2.00
		2 h drying		0.08	2.00
		7 d drying		0.25	2.00
	Backstop® NT-VB	dry state	MPa	0.25	1.04
		2 h drying		0.08	0.43

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Property			Unit	Requirement: no detachment at bonding plane @	Result
		7 d drying		0.25	0.81
Adhesion bond of WRB to glass mat gypsum	Backstop® NT-VB	dry state	MPa	0.25	0.88
		2 h drying		0.08	0.19
		7 d drying		0.25	0.32

Table 4. Adhesion bond of adhesive to WRB

Property			Unit	Requirement: no detachment at bonding plane @	Result
Adhesion bond	Primus® DM to Dryflex®	dry state	MPa	0.25	0.73
		2 h drying		0.08	0.56
		7 d drying		0.25	0.72
	Primus® DM to Backstop® NT™	dry state	MPa	0.25	0.65
		2 h drying		0.08	0.37
		7 d drying		0.25	1.16
	Primus® DM to Backstop® NTVB	dry state	MPa	0.25	0.71
		2 h drying		0.08	0.51
		7 d drying		0.25	0.72
	Primus® to Dryflex®	dry state	MPa	0.25	1.22
		2 h drying		0.08	0.51
		7 d drying		0.25	0.24
	Primus® to Backstop® NT™	dry state	MPa	0.25	2.09
		2 h drying		0.08	1.52
		7 d drying		0.25	1.74

Table 5. Adhesion bond of adhesive to insulation

Property		Unit	Requirement: no detachment at bonding plane @	Result
Primus® DM to EPS	dry state	MPa	0.08	0.24
	2 h drying		0.08	0.20

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Property		Unit	Requirement: no detachment at bonding plane @	Result
Primus® to EPS	7 d drying	MPa	0.08	0.22
	dry state		0.08	0.25
	2 h drying		0.08	0.23
	7 d drying		0.08	0.24

Table 6. Lamina bond strength tests

Property				Unit	Requirement: no detachment at bonding plane @	Result
Lamina bond strength	base coat to insulation	Primus® DM to EPS	dry state	MPa	0.08	0.24
			2 h drying		0.08	0.20
			7 d drying		0.08	0.20
		Primus® to EPS	dry state	MPa	0.08	0.25
			2 h drying		0.08	0.23
			7 d drying		0.08	0.24
	finish coat to base coat	Primus® DM to DPR	dry state	MPa	0.08	0
			2 h drying		0.08	0.22
			7 d drying		0.08	0.23
		Primus® to DPR	dry state	MPa	0.08	0.59
			2 h drying		0.08	0.16
			7 d drying		0.08	0.35

Table 7. Water vapour transmission of WRB

Property	Unit	Requirement	Result
Dryflex®	ng/(Pa·s·m ²)	Report value	227
Backstop® NT™			26
Backstop® NT-VB			6

Table 8. Water vapour transmission of lamina ⁽¹⁾

Property	Unit	Requirement	Result
Primus® DM	ng/(Pa·s·m ²)	Report value	95
Primus®			73

Note:

¹ Lamina refers to the base coat, mesh and finish coat.

Table 9. Water absorption

Property	Unit	Requirement	Result	
Water absorption of base coat	base coat (Primus® DM)	%	≤ 20 of the dry weight	15.0
	base coat (Primus®)			11.6
Water absorption of lamina (optional)	Primus® and DPR			11.6

Table 10. Water absorption coefficient of WRB at 72 hours

Property	Unit	Requirement	Result
Backstop® NT™	kg/(m ² ·s ^{1/2})	4 × 10 ⁻³	2.94 × 10 ⁻³
Backstop® NT™			0.2 × 10 ⁻³
Dryflex®			1.3 × 10 ⁻³

Table 11. Impermeability to water

Property	Unit	Requirement	Result
Primus® DM	h	No water penetration in less than 2 h	Pass

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Property	Unit	Requirement	Result
Primus®			Pass

Table 12. Mildew and fungus resistance

Property	Unit	Requirement	Result
Mildew and fungus resistance	No unit	No growth	Pass

Table 13. Accelerated weathering resistance

Property	Unit	Requirement	Result
Lamina @ 2 000 h	No unit	No cracking, flaking or deleterious effects	Pass
WRB @ 250 h			Pass

Table 14. Salt spray resistance

Property	Unit	Requirement	Result
Salt spray resistance @ 300 h	No unit	No cracking, flaking or deleterious effects	Pass

Table 15. Durability under environmental cyclic conditions

Property	Unit	Requirement	Result
Environmental cycling (60 cycles) ⁽¹⁾	No unit	No cracking, blistering or sagging of base coat, and no detachment or crazing of finish coat	Pass
Adhesion bond strength	base coat (Primus® DM)	0.08	0.18
	finish coat (Sandpebble® Fine)		0.18

Note:

¹ This table is based on conducting the durability under environmental cyclic conditions on the system consisting of Backstop® NT-VB as WRB and Primus® DM as base coat/adhesive.

Table 16. Reinforcement mesh breaking strength resistance ⁽¹⁾

Property		Unit	Requirement	Result	
Ash content		%	Report value	14.7	
Mass per unit area		g/m ²	Report value	145	
Tensile Strength		N/mm		Weft	Warp
Initial strength		N/mm	≥ 35	43.3	36.2
Loss of tensile strength after 28-day 3 ion soak		%	≤ 50	26.7	22.4
Residual tensile strength after 28-day 3 ion soak		N/mm	≥ 20	31.8	28.1
Elongation @ break	initial	%	Report value	4.1	4.1
	after 28-day 3 ion soak	%		2.9	2.9

Note:

¹ The results for the reinforcement mesh breaking strength resistance test are based on the following mesh characteristics:

- Designation: Saint-Gobain 0038
- Weight: 145.0 g/m²

Table 17. Impact resistance

Property		Unit	Requirement	Result
Impact resistance of min. 200 g/m ² mesh	10 joules	No unit	Six of 10 free-fall drops shall show no perforation (broken mesh)	Pass
	3 joules		Six of 10 free-fall drops shall show no cracks	Pass

Table 18. Wind load resistance ⁽¹⁾

Reference wind pressure (kPa)	Sustained		Cycling		Gust		Deflection test		
							Test pressure (Pa)	Measured maximum net mid-span deflections (mm)	
	P1 , P'1 (Pa)	Pass	P2 , P'2 (Pa)	Pass	P3 , P'3 (Pa)	Pass		2.18 P1 , P'1	Stud span 3 050 mm
Q₅₀ ≤ 0.45	±450	Pass	±660	Pass	±980	Pass	+980	5.7	0.8
							-980	6.7	1.0
Q₅₀ ≤ 0.55	±550	Pass	±800	Pass	±1 200	Pass	+1 200	7.4	1.1
							-1 200	8.4	1.3

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Reference wind pressure (kPa)	Sustained		Cycling		Gust		Deflection test		
	P1 , P'1 (Pa)		P2 , P'2 (Pa)		P3 , P'3 (Pa)		Test pressure (Pa)	Measured maximum net mid-span deflections (mm)	
							2.18 P1 , P'1	Stud span 3 050 mm	Sheathing span 406 mm
$Q_{50} \leq 0.60$	±650	Pass	±950	Pass	±1 410	Pass	+1 410	8.0	1.9
							-1 410	9.5	2.2
$Q_{50} \leq 0.75$	±750	Pass	±1 090	Pass	±1 630	Pass	+1 630	9.3	2.8
							-1 630	11.0	3.2
$Q_{50} \leq 0.85$	±850	Pass	±1 240	Pass	±1 850	Pass	+1 850	10.5	3.7
							-1 850	11.9	4.2
$Q_{50} \leq 1.00$	±1 000	Pass	±1 460	Pass	±2 180	Pass	+2 180	13.0	4.6
							-2 180	13.8	5.1
Maximum test pressure @ L/180 deflection							+2 890	16.9	
							-2 750		
Ultimate structural test pressure							+3 350	OK	
							-3 150	Sheathing separation from steel studs occurred	

Note:

- 1 The given values in this table are for the system (Outsulation[®] Plus^{NC}) with the previous formula (version) of the Primus[®] DM. Wind load resistance performance of the current system (with new Primus[®] DM) has been justified through the individual adhesion tests on the current version of the Primus[®] DM.

Table 19. Accelerated weathering of WRB (Backstop[®] NT-VB on glass mat gypsum substrate)

Property	Unit	Requirement	Result	
			Sample no.	Result
Accelerated weathering resistance	No unit	The WRB applied over glass mat gypsum shall show no cracking, delamination, flaking or any deleterious effects following 250 h of exposure to Xenon arc	1	Pass
			2	Pass
			3	Pass
			4	Pass
			5	Pass

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Property	Unit	Requirement	Result	
			Sample no.	Result
			6	Pass

Applications over wood substrates (plywood/OSB)

Table 20. Adhesion of WRB to (plywood/OSB) substrates

Property		Unit	Requirement: no detachment at bonding plane @	Result
Adhesion bond of Backstop® NT™	dry state	MPa	0.25	0.956
	1 h soaking		0.25	1.0228
	24 h soaking		0.25	0.829
Adhesion bond of Backstop® NT-VB	dry state	MPa	0.25	0.884
	1 h soaking		0.25	1.043
	24 h soaking		0.25	0.830

Table 21. Joint disruption resistance

Property	Unit	Requirements	Results		
			Joint width		Result
			2 mm	4 mm	
Backstop® NT™	joint extension @ L/180 (mm)	The WRB at joints on 2 assemblies shall show no cracking, delamination or any other deleterious effects at a transverse bending of L/180	0.11	0.15	Pass
	applied load @ L/180 (kN)		5.76	5.81	
Backstop® NT-VB	joint extension @ L/180 (mm)		0.54	1.02	Pass
	applied load @ L/180 (kN)		4.79	4.84	

Table 22. Joint relaxation resistance

Property		Unit	Requirement	Result	
Backstop® NT™	joint relaxation resistance	kg/m ² ·s	Five WRB-coated OSB specimens subject to a 1.3-mm extension following exposure to fifteen 24-hr environmental cycles shall have a max. average water transmission rate (WTR) of 2×10^{-7} kg/m ² ·s	Sample no.	Result
				1	0.85×10^{-7}
				2	0.45×10^{-7}
				3	0.55×10^{-7}
				4	1.92×10^{-7}
Backstop® NT-VB	joint relaxation resistance			Sample no.	Result
				1	0.63×10^{-7}
				2	0.79×10^{-7}
				3	0.76×10^{-7}
				4	0.81×10^{-7}

Table 23. Water transmission resistance of WRB

Property		Unit	Requirement	Result	
Backstop® NT™	water transmission resistance	10^{-7} kg/m ² ·s	Five WRB-coated OSB specimens subjected to a 25-mm head of water shall have a max. average WTR of 2×10^{-7} kg/m ² ·s measured at 10 days	Sample no.	Result
				1	1.73
				2	1.66
				3	1.32
				4	0.61
				5	1.35

Table 24. Water vapour transmission of WRB (Backstop® NT™)

Property	Unit	Requirement	Result			
Water vapour transmission	ng/(Pa·s·m ²)	Report value of the WVT rate of the WRB in combination with the OSB applied at the maximum thickness and the OSB alone	Sample no.	Coated	Uncoated	Difference
			1	68	116	48
			2	58	130	72

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Property	Unit	Requirement	Result			
			3	55	127	72

Table 25. Accelerated weathering of WRB (Backstop® NT™ on OSB substrate)

Property	Unit	Requirement	Result	
			Sample no.	Result
Accelerated weathering resistance	No unit	The WRB applied over OSB shall show no cracking, delamination, flaking or any deleterious effects following 250 h of exposure to Xenon arc	1	Pass
			2	Pass
			3	Pass
			4	Pass
			5	Pass
			6	Pass

Table 26. Drainage capacity of Outsulation® Plus ⁽¹⁾

Property	Requirement	Result		
		Retained water (g)	Drainage capacity (%) after 1 h	
		Per unit area (g/m ²)	1 h	48 h
Drainage capacity	The unit-retained water (based on the projected drainage area) following one hour and 48 hours of drainage period shall not be greater than 40 g/m ² for any single test specimen. The drainage capacity shall not be less than 98% of the water mass delivered into the EIFS wall specimen	Panel 1		
		13.4	8.5	99.8 Pass
		Panel 2		
		14.8	5.8	99.8 Pass
		Panel 3		
		14.8	12.3	99.8 Pass
		Panel 4		
		14.8	10.2	99.8 Pass

Note:

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1 Panels consisted of OSB sheathing and Backstop® NT™ as WRB.

Table 27. Drainage capacity of Outsulation® Plus^{NC} (1)

Property	Requirement	Result		
		Retained water (g)	Drainage capacity (%) after 1 h	
		Per unit area (g/m ²)		
		1 h	48 h	
Drainage capacity	The unit-retained water (based on the projected drainage area) following one hour drainage period shall not be greater than 40 g/m ² for any single test specimen. The drainage capacity shall not be less than 98% of the water mass delivered into the EIFS wall specimen	Panel 1		
		21.2	-	99.7 Pass
		Panel 2		
		30.2	-	99.6 Pass
		Panel 3		
		30.7	-	99.6 Pass

Note:

1 Panels consisted of OSB sheathing and Backstop® NT-VB as WRB.

Table 28. Nail popping resistance (Backstop® NT™ and Backstop® NT-VB)

Property	Unit	Requirement	Result	
Nail popping resistance	No unit	There shall be no cracking or delamination of the WRB following 1 mm nail protrusion from the nails original preset of 1 mm below the surface of the OSB substrate	Sample No.	Result
			1	Pass
			2	Pass
			3	Pass
			4	Pass
			5	Pass
			6	Pass

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Fire performance

Outsulation[®] Plus, Outsulation[®] MD, and Outsulation[®] PD conform to the requirements of Clause 3.1.5.5.(1)(b), Combustible Cladding on Exterior Walls, of Division B of the NBC 2015. For a detailed description of compliance, please refer to Intertek Listing Dryvit – Category 1 Outsulation EIFS Wall Systems Spec ID: 29311.

Outsulation Plus^{NC}, Outsulation MD^{NC}, and Outsulation PD^{NC} conform to the requirements of Clause 3.2.3.8.(1)(b), Protection of Exterior Building Face, of Division B of the NBC 2015. For a detailed description of compliance, please refer to Intertek Listing Dryvit – Category 2 Outsulation^{NC} EIFS Wall Systems Spec ID: 29344.

Administrative information

Use of Canadian Construction Materials Centre (CCMC) assessments

This assessment must be read in the context of the entire [CCMC Registry of Product Assessments](#), any applicable building code or by-law requirements, and/or any other regulatory requirements (for example, the [Canada Consumer Product Safety Act](#), the [Canadian Environmental Protection Act](#), etc.).

It is the responsibility of the user to confirm that the assessment they are using is current and has not been withdrawn or superseded by a later version on the [CCMC Registry of Product Assessments](#).

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The National Research Council of Canada (NRC) has evaluated only the characteristics of the specific product described herein. The information and opinions in this evaluation are directed to those who have the appropriate degree of experience to use and apply its contents (such as authorities having jurisdiction, design professionals and specifiers). This evaluation is valid when the product is used as part of permitted construction, respecting all conditions and limitations stated in the evaluation, and in accordance with applicable building codes and by-laws.

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CCMC recognition

The Canadian Construction Materials Centre (CCMC) assesses compliance with Canadian building, energy and safety codes. We are the only construction code compliance service supported and operated by the Government of Canada. Trusted by over 6,000 regulators across Canada.

Most Canadian authorities having jurisdiction (AHJs) consider CCMC product assessments acceptable as evidence for product approval.

CCMC assessments are recognized by construction authorities across Canada:

Alliance of Canadian Building Official Associations (ACBOA)



(Alliance of Canadian Building Official Associations (ACBOA))

First Nations National Building Officers Association (FNNBOA)



(First Nations National Building Officers Association (FNNBOA))

Canadian Home Builders' Association (CHBA)



(Canadian Home Builders' Association (CHBA))

Alberta Building Officials Association (ABOA)



(Alberta Building Officials Associations (ABOA))

Saskatchewan Building Officials Association (SBOA)



(Saskatchewan Building Officials Association (SBOA))

Manitoba Building Officials Association (MBOA)



(Manitoba Building Officials Association (MBOA))

Ontario Building Officials Association (OBOA)



(Ontario Building Officials Association (OBOA))

New Brunswick Building Officials Association (NBBOA)



(New Brunswick Building Officials Association (NBBOA))

Nova Scotia Building Officials Association (NSBOA)



(Nova Scotia Building Officials Association (NSBOA))

The CCMC provides code compliance assessments to Canadian code requirements, consulting nationwide with construction regulators to elicit regional variations in code requirements as well as provincial and local interpretations. Users are advised to review the technical information presented in CCMC assessments when making approval decisions. [Learn more about how the CCMC provides a unique service for Canada.](#)

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Code compliance as an acceptable solution

Code Compliance via Acceptable Solutions

If a building design (e.g. material, component, assembly or system) can be shown to meet all provisions of the applicable **acceptable solutions** in Division B (e.g. it complies with the applicable provisions of a referenced standard), it is deemed to have satisfied the objectives and functional statements linked to those provisions and thus to have complied with that part of the Code.

— National Building Code of Canada, Sentence A-1.2.1.1.(1)(a)

The CCMC has determined that compliance with this provision of the Code has been demonstrated as an **Acceptable Solution**. The evaluation report provides a summary of the basis of CCMC's compliance opinion.

CCMC's code compliance opinions

All CCMC evaluation reports are opinions of code compliance established in accordance with the National Building Code of Canada, Subsection 1.2.1. "Compliance with this Code," which requires compliance to be achieved by:

- complying with the applicable acceptable solutions in Division B, or
- using an alternative solution that will achieve at least the minimum level of performance required by Division B in the areas defined by the objective and functional statements attributed to the applicable acceptable solutions.

The CCMC assesses compliance with Canadian building, energy and safety codes, and is trusted by over 6,000 regulators across Canada.

Code compliance as an alternative solution

Code Compliance via Alternative Solutions

Where a design differs from the acceptable solutions in Division B, then it should be treated as an **"alternative solution."** A proponent of an alternative solution must demonstrate that the alternative solution addresses the same issues as the applicable acceptable solutions in Division B and their attributed objectives and functional statements. However, because the objectives and functional statements are entirely qualitative, demonstrating compliance with them in isolation is not possible. Therefore, Clause 1.2.1.1.(1)(b) identifies the principle that Division B establishes the quantitative performance targets that alternative solutions must meet. In many cases, these targets are not defined very precisely by the acceptable solutions [...] Nevertheless, Clause 1.2.1.1.(1)(b) makes it clear that an effort must be made to demonstrate that an alternative solution will perform as well as a design that would satisfy the applicable acceptable solutions in Division B—not “well enough” but “as well as.”

— National Building Code of Canada, Sentence A-1.2.1.1.(1)(b)

The CCMC has determined that compliance with this provision of the Code has been demonstrated as an **Alternative Solution**. The evaluation report provides a summary of the basis of CCMC's compliance opinion.

CCMC's code compliance opinions

All CCMC evaluation reports are opinions of code compliance established in accordance with the National Building Code of Canada, Subsection 1.2.1. "Compliance with this Code," which requires compliance to be achieved by:

- complying with the applicable acceptable solutions in Division B, or
- using an alternative solution that will achieve at least the minimum level of performance required by Division B in the areas defined by the objective and functional statements attributed to the applicable acceptable solutions.

The CCMC assesses compliance with Canadian building, energy and safety codes, and is trusted by over 6,000 regulators across Canada.